

A SECURE COVERT COMBAT IDENTIFICATION FRIEND-OR-FOE (IFF) SYSTEM FOR THE DISMOUNTED SOLDIER

ABSTRACT OF THE DISCLOSURE

A combat IFF system, for use in a combat exercise or on the battlefield, including a helmet-mounted passive IFF response unit and a weapon-mounted IFF interrogatory unit for each soldier. Infrared (IR) signals are employed for both challenge and response. The IR response signal is a very narrowly-targeted reflection of the relatively narrow IR transmit signal, thereby minimizing interception opportunities. The transmit and response signals are encoded in a transaction that cannot be compromised even when either or both signals are intercepted and decoded by the enemy. The combat IFF system includes biometric anti-spoofing features that prevent any use by an enemy in possession of captured units. Military radio-frequency (RF) spectrum is not required so there are no bandwidth limitations on simultaneous IFF transactions in the battlefield. A combat IFF transaction is completed in milliseconds.